

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
DESIGNATED OFFICE

Title : EXHAUST SYSTEM FOR ENHANCED
REDUCTION OF NITROGEN OXIDES
AND PARTICULATES FROM DIESEL ENGINES

Inventor(s) : Ramesh M. Kakwani, Kenneth C. Voss,
Joseph A. Patchett, Karl R. Grimston

International Filing Date : 03 Aug 2001

International App. No. : PCT/US01/24277

Last Office Action : 22 Aug 2001

Examiner : Georgette Hill

Our Docket No. : 4644

1422 Euclid Avenue
720 Hanna Building
Cleveland, OH 44115

EXPRESS MAIL CERTIFICATE

Express Mail label number: EF213009026US
Date of Deposit: September 24, 2001

I hereby certify that the following attached papers are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date above and is addressed to Box PCT/Attn: RO/US, Commissioner of Patents and Trademarks, Washington, D.C. 20231.

- 1) Response to PCT Invitation to Correct Defects in the International Application
- 2) New spec pages 16, 24, 25, 27 and 28 with corrected margins
- 3) Transmittal Letter (2 copies)
- 4) Copy of Invitation to Correct Defects in the International Application
- 5) Return Receipt Postcard

Christie L. Cermak
Typed or Printed name of person mailing paper or fee

Christie L. Cermak
Signature of Person mailing paper or fee

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OCT 5 - 2001
TC 1700

FORM PTO-1390
(REV. 11-2000)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

4644

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

09/816,912 (23 MAR 01)

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

INTERNATIONAL APPLICATION NO.

PCT/US01/24277

INTERNATIONAL FILING DATE

03 AUG 01

PRIORITY DATE CLAIMED

TITLE OF INVENTION

Exhaust System for Enhanced Reduction of Nitrogen Oxides and Particulates From Diesel Engine

APPLICANT(S) FOR DO/EO/US

Kakwani et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☐ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A FIRST preliminary amendment.
14. ☐ A SECOND or SUBSEQUENT preliminary amendment.
15. ☒ A substitute specification. (Pages 16, 24, 25, 27 and 28 with corrected margins.)
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☐ Other items or information:

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U.S. APPLICATION NO. (if known, see 37 CFR 1.5)		INTERNATIONAL APPLICATION NO.		ATTORNEY'S DOCKET NUMBER	
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21. <input type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO. \$1000.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$860.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$710.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$690.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00 ENTER APPROPRIATE BASIC FEE AMOUNT =				CALCULATIONS PTO USE ONLY	
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).					
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	- 20 =		x \$18.00		
Independent claims	- 3 =		x \$80.00		
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$270.00	
TOTAL OF ABOVE CALCULATIONS =					
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				+	
SUBTOTAL =					
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).					
TOTAL NATIONAL FEE =					
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +					
TOTAL FEES ENCLOSED =					
				Amount to be refunded:	\$
				charged:	\$

a. ☐ A check in the amount of \$ _____ to cover the above fees is enclosed.

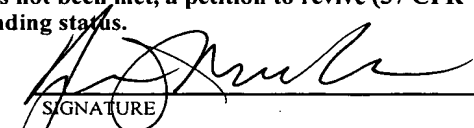
b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.
A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any
overpayment to Deposit Account No. 14-0610. A duplicate copy of this sheet is enclosed.

d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card
information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR
1.137 (a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:


 SIGNATURE
 FRANK J. NAWALANIC
 NAME
 26,491
 REGISTRATION NUMBER

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
DESIGNATED OFFICE**

Title : EXHAUST SYSTEM FOR ENHANCED
REDUCTION OF NITROGEN OXIDES
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Examiner : Georgette Hill

Our Docket No. : 4644

1422 Euclid Avenue
720 Hanna Building
Cleveland, OH 44115

**RESPONSE TO PCT INVITATION TO CORRECT
DEFECTS IN THE INTERNATIONAL APPLICATION**

Assistant Commissioner for Patents
Box PCT Attn: RO/US
Washington, D.C. 20231

Dear Sir:

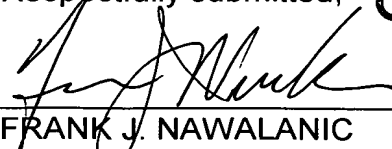
In response to the Invitation to Correct Defects in the International Application no. PCT/US01/24277, with an international filing date of 03 Aug 01 (identified above), attached are corrected specification sheet Nos. 16, 24, 25, 27 and 28 with corrected right side margins of 2cm. Also attached is a copy of the "Invitation to Correct Defects".

The undersigned was authorized by Richard A. Negin, Reg. No. 28,649, an attorney of record in the subject application, to prepare and file this response. Correspondence should continue to be had with Stephen I. Miller, Esq., Chief Patent Counsel, Engelhard Corporation, 101 Wood Avenue, P. O. Box 770, Iselin, NJ, 08830-0770.

Telephone: (216) 696-8815

Respectfully submitted,

BY:


FRANK J. NAWALANIC
Reg. No. 26,491

Express Mail No. EF213009026US

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From the RECEIVING OFFICE

PCT COPY

To:

STEPHEN I. MILLER
ENGELHARD CORPORATION
101 WOOD AVENUE
P.O. BOX 770
ISELIN NJ 08830-0770

RECEIVED

AUG 24 2001

INVITATION TO CORRECT DEFECTS IN
THE INTERNATIONAL APPLICATION

(PCT Articles 3(4)(i) and 14(1) and Rule 26)

Date of mailing
(day/month/year)

22 AUG 2001

Applicant's or agent's file reference
4644

REPLY DUE

within ONE MONTH from
the above date of mailing

International application No.

PCT/US01/24277

International filing date
(day/month/year)

03 AUG 01

Applicant

ENGELHARD CORPORATION

1. ☒ The applicant is hereby invited, within the time limit indicated above, to correct, in the international application as filed, the defects specified on the attached

☐ Annex A

☒ Annex B1 (text matter of the international application as filed)

☐ Annex C1 (drawings of the international application as filed)

2. ☐ The applicant is hereby invited, within the time limit indicated above, to correct, in the translation of the international application furnished under Rule 12.3, the defects specified on the attached

☐ Annex A

☐ Annex B2 (text matter of the translation of the international application)

☐ Annex C2 (drawings of the translation of the international application)

Additional observations (if necessary):

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OCT 5 - 2001

Docketed

8/24/01 by

Response due

9/22/01

Attorney

Law to Correct Defects
RAN

HOW TO CORRECT THE DEFECTS?

Correction must be submitted by filing a replacement sheet embodying the correction and a letter accompanying the replacement sheet, which shall draw attention to the difference between the replaced sheet and the replacement sheet. A correction may be stated in a letter only if it is of such a nature that it can be transferred from the letter to the record copy without adversely affecting the clarity and direct reproducibility of the sheet onto which the correction is to be transferred (Rule 26.4).

ATTENTION

Failure to correct the defects will result in the international application being considered withdrawn by this receiving Office (see Rule 26.5 for further details).

A copy of this invitation and any attachments has been sent to the International Bureau

☒ and the International Searching Authority.

Name and mailing address of the receiving Office

Assistant Commissioner for Patents

Box PCT

Washington, D.C. 20231

Facsimile No.

Attn: RO/US

Authorized officer

Georgette Hill

PCT INTERNATIONAL SERVICES DIVISION

Telephone No.

COPY

The receiving Office has found that, with regard to the presentation of the text matter of the international application as filed, the physical requirements are not complied with to the extent that compliance therewith is necessary for:

1. ☐ reasonably uniform international publication (Rules 11 and 26.3(a)(i)) (defects to be specified):

	Request	Description	Claims	Abstract
a. <input type="checkbox"/> The sheets do not admit of direct reproduction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. <input type="checkbox"/> The element does not commence on a new sheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. <input type="checkbox"/> Sheets are not free from creases, cracks, folds.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. <input type="checkbox"/> Sheets are not used in the upright position.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. <input type="checkbox"/> One side of the sheets is not left unused.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. <input type="checkbox"/> The paper of the sheets is not flexible/strong/white/smooth/non-shiny/durable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. <input type="checkbox"/> The sheets are not connected as prescribed (Rule 11.4(b)).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. <input type="checkbox"/> Sheets are not A4 size (29.7cm x 21cm).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. <input checked="" type="checkbox"/> The minimum margins on the sheets are not as prescribed (top: 2cm; left side: 2.5cm; right side: 2cm; bottom: 2cm). <i>Page 16, 24, 25, 27 and 28</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. <input type="checkbox"/> The file reference number indicated on the sheets does not appear in the left-hand corner of the sheets, within 1.5cm of the top of the sheets.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. <input type="checkbox"/> The file reference number exceeds the maximum of 12 characters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. <input type="checkbox"/> The sheets of the description, claims and abstract are not numbered in consecutive Arabic numerals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. <input type="checkbox"/> The sheet numbers are not centered at the top or bottom of the sheets.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. <input type="checkbox"/> The sheet numbers are in the margin (see i. above for the size of the margins).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. <input type="checkbox"/> The text matter is not typed or printed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. <input type="checkbox"/> The typing on the sheets is not 1.5-spaced.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. <input type="checkbox"/> The characters in the text matter on the sheets are less than 0.21 cm high in capital letters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r. <input type="checkbox"/> The text matter on the sheets is not in dark, indelible color.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. <input type="checkbox"/> The element contains drawings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t. <input type="checkbox"/> The sheets contain alterations/overwritings/interlineations/too many erasures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
u. <input type="checkbox"/> The sheets contain photocopy marks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. ☐ satisfactory reproduction (Rules 11 and 26.3(b)(i)).

Further observation (if necessary):

New Pages are Required